



PROGRESS REPORT NO. 169

TO: Robert Tan, U.S. Environmental Protection Agency (EPA) – via Electronic mail
Kathryn Cerise, EPA – via Electronic mail

FROM: Kris McCaig, Teck American Incorporated (TAI)

Cc: Denise Mills, TAI – via Electronic mail
Rob Orr, TAI – via Electronic mail

DATE: August 7, 2020

FILE NO: 01-773180-000

RE: Upper Columbia River (UCR) Remedial Investigation/Feasibility Study
(RI/FS) - Progress Report No. 169 Month Ending July 2020

Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of activities completed during the past month in compliance with the aforementioned Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Soil Amendment Technology Evaluation Study (SATES):

TAI continued coordination with the SATES team and Kira Lynch, Superfund Technology Liaison with the Office of Research and Development (ORD), Office of Science and Policy during the month. The Ohio State University (OSU) continued performing analyses on the time point 3 soil samples collected on March 11, 2020 for the Phase II bench-scale testing of selected soil amendments. TAI is preparing the draft work plan for SATES Phase III (field implementation) and Phase IV (monitoring) and will submit it to EPA for review and comment in early August. TAI is on track to initiate implementation of the field-scale study in September 2020, and will be coordinating with EPA, representatives of the Confederated Tribes of the Colville Reservation, and other members of the SATES technical team through August, as necessary, to meet this schedule.

Baseline Ecological Risk Assessment:

Weight of evidence (WOE) – On July 1, 2020 TAI sent an email to EPA with a proposed path forward for the WOE collaborative process which included holding three more collaborative calls and TAI submitting a technical memorandum on the WOE

approach approximately six weeks after the third call. EPA responded on July 6, 2020 and agreed with TAI's proposal. The first of three WOE calls for this round of collaboration between TAI and EPA was held on July 14, 2020. As of this writing, the second call has been scheduled for August 10, 2020.

Upland Soil Background Assessment – TAI submitted the Final Technical Memorandum, Assessment of Background Concentrations of Metals and Metalloids in Upland Soils to EPA on July 21, 2020, following receipt of EPA's approval via email on July 15, 2020 of the Revised Draft Final Technical Memorandum dated June 29, 2020.

Phase 3 Sediment Study Sediment Facies Mapping – On May 4, 2020, TAI submitted responses to EPA's comments on the Draft Phase 3 Sediment Study - Sediment Facies Mapping (SFM) Data Summary Report (DSR) and the Draft Technical Memorandum (TM) Preliminary Sediment Composition and Facies Maps for Upper Reach Operable Unit and the draft final versions of each report. TAI received comments from EPA on June 22, 2020. TAI provided responses to EPA's comments and revised draft final versions of each report on July 17, 2020.

2019 Phase 3 Sediment Study:

Benthic Macroinvertebrate (BMI) Data Analysis – A second conference call was held on July 1, 2020 with TAI and EPA to continue TAI's overview of the proposed approach for BMI data analysis. EPA presented their comments on TAI's proposed approach on July 28, 2020 (presentation materials were provided to TAI via email on July 27, 2020). TAI and EPA scheduled a call for August 27, 2020 to discuss EPA's comments on TAI's proposed approach (TAI will provide questions for discussion at least one week before the August 27 call).

Backscatter Electron Microscopy (BSEM) – Analysis of the BSEM samples was completed in April and TAI submitted a summary report for the BSEM data to EPA on June 5, 2020. EPA provided comments on the BSEM data report to TAI on July 13, 2020.

Toxicity Identification Evaluation (TIE) Pilot Study – TAI continued to provide weekly progress reports on the additional testing to EPA during the month of July; these reports have included summaries of test results when available. TAI submitted a study plan for proposed additional experiments to EPA via email on July 2, 2020. EPA's technical team provided one comment on the proposed plan via email on July 14, 2020, and TAI submitted a proposed response to resolve EPA's comment that same day. EPA's team indicated its concurrence on the revised study plan via email on July 15, 2020, and TAI submitted the final study plan to EPA via email on July 17, 2020. TAI submitted results for the repeat XAD-4 experiment to EPA on July 17, 2020, for review and discussion. Based on those results, EPA and TAI agreed that a second repeat XAD-4 should be conducted; however, it was determined that the additional sediment for sample 3R-7,

stored at the United States Geological Survey Columbia Environmental Research Center (CERC) laboratory, was needed for the TIE Pilot Study. CERC confirmed additional sediment was available and requested it be released and shipped to Nautilus to conduct the repeat experiment. As of this writing, Nautilus has confirmed receipt of the additional 3R-7 sediment.

Bioassay Testing – Testing started on June 9, 2020 at both CERC and PER and was completed on July 30, 2020. PER collected sediment and porewater samples during the bioassay testing as per the QAPP and shipped them to TAI's contract analytical laboratory (ALS) for analysis. As of this writing, TAI notified EPA via email on August 6, 2020 that the first data validation data files and report for the UCR 2019 Phase 3 Sediment Study with bioassay-related sediment chemistry had been posted for EPA quality assurance review.

Human Health Risk Assessment (HHRA) – TAI attended the second public webinar hosted by EPA on July 15, 2020. TAI continued review of the Public Review Draft Site-wide HHRA (April 2020) and submitted formal comments on the document on July 24, 2020.

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-623-4501.